

AMENDMENTS TO THE CLAIMS

Amend the claims as set forth in the following listing. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently amended) A method ~~[[of]]~~ for streaming media data, the method comprising:

receiving information indicative of a client's pre-decoder buffering parameters,
the received information indicative of at least one of the pre-decoder initial buffering
time and the minimum pre-decoder buffer size;

sending information indicative of a pre-decoder buffering parameter for the media
data;

sending information indicative of a post-decoder buffering parameter for the
media;

adapting the transmission of ~~transmitting~~ a plurality of data packets as a data
packet stream to ensure that ~~over a network from a source server to a client device, the~~
~~client device comprising a source decoder and a pre-decoder buffer;~~

~~removing protocol headers from a data packet received at the client device to~~
~~retrieve media data;~~

~~buffering the media data in the pre-decoder buffer of the client device in~~
~~accordance with a buffering algorithm; and~~

~~operating the source server to verify that the data packet stream transmitted from the source server to the client device complies with the a buffering algorithm, behavior of the buffering algorithm being affected by [[a]] the pre-decoder buffer parameters for the media data initial buffering time and a minimum pre-decoder buffer size, the minimum pre-decoder buffer size corresponding to a minimum size of the pre-decoder buffer required to provide substantially correct playback of the media data at the client device.~~

2. (Cancelled)

3. (Currently amended) The method of claim 1, wherein the received information indicates at least one of ~~comprising defining~~ a default pre-decoder initial buffering time and a default minimum pre-decoder buffer size.

4 – 6. (Cancelled)

7. (Currently amended) The method of claim 1, comprising:
sending a plurality of pre-decoder buffering parameters ~~providing the source server with a plurality of pre-encoded media streams representative of the same media content and signaling the client device to indicate at least one of a pre-decoder initial buffering time and a pre-decoder buffer size required in the client to ensure correct playback of a plurality of each available pre-encoded media streams representative of the same media content; and~~

receiving an information indicative of the pre-decoder buffering parameters for the selected pre-encoded media stream.

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Currently amended) The method of claim 5[[1]], ~~comprising adjusting at least one of the pre-decoder initial buffering time and the pre-decoder buffer size in the client device responsive to a change in required pre-decoder buffer parameters signaled by the source server~~ wherein the information is sent during a streaming session.

12. (Cancelled)

13. (Currently amended) The method of claim 1, further comprising:
adjusting the transmission times of data packets ~~from the source server to the client device~~ in order to ensure that the transmitted data packet stream does not exceed the buffering capabilities of the pre-decoder buffer in the client device.

14. (Cancelled)

15. (Currently amended) The method of claim 1, comprising:
receiving information indicative of the client's implementing a post-decoder
buffer parameters in the client device to absorb decoding-related delay variations.

16 – 21. (Cancelled)

22. (Currently amended) A client device for receiving ~~streaming~~ media data,
the media data being received at the client device ~~in a plurality of data packets~~
~~transmitted as a data packet stream over a network from a source server~~, the client device
comprising:

a source decoder; and

a controller for sending information indicative of a client's pre-decoder buffering
parameters, the information indicative of at least one of the pre-decoder initial buffering
time and the pre-decoder buffer size; receiving information indicative of a pre-decoder
buffering parameter for the media data; and receiving information indicative of a post-
decoder buffering parameter for the media;

a pre-decoder buffer coupled to the source decoder for buffering the media data
temporarily prior to decoding ~~into an uncompressed data format~~ in the source decoder;

wherein the client device is arranged ~~to remove protocol headers from a data~~
~~packet received at the client device to retrieve media data~~ and to buffer the media data in
the pre-decoder buffer in accordance with a buffering algorithm, ~~and the source server is~~
~~arranged to verify that the data packet stream transmitted from the source server to the~~

~~client device complies with the buffering algorithm, behavior of the buffering algorithm being affected by [[a]] the pre-decoder initial buffering time and [[a]] the minimum pre-decoder buffer size; and, the minimum pre-decoder buffer size corresponding to a minimum size of the pre-decoder buffer required to provide substantially correct playback of the media data at the client device.~~

a post-decoder buffer coupled to the source decoder for buffering the media data after decoding.

23 – 26. (Cancelled)

27. (Currently amended) A method according to claim 1, wherein the ~~source server retrieves~~ pre-decoder buffering parameters ~~capabilities~~ for the client device is received from a capability server.

28. (Currently amended) A method according to claim 1, further comprising:
~~wherein the source server adjusts~~ adjusting the way in which the media data is encoded and packetized in order to ensure that the transmitted data packet stream does not exceed the buffering capabilities of the pre-decoder buffer in the client ~~device~~.

29 – 43. (Cancelled)

44. (Currently amended) A client device according to claim 22, wherein the sent information indicates at least one of a default pre-decoder initial buffering time and a default minimum pre-decoder buffer size ~~are defined for the pre-decoder buffer of the client device.~~

45 – 46. (Cancelled)

47. (Currently amended) A client device according to claim 22, wherein the client device is arranged to adjust its pre-decoder initial buffering time responsive to a[[n]] received indication of a required pre-decoder initial buffering time ~~received from the source server.~~

48. (Currently amended) A client device according to claim 22, wherein the client device is arranged to adjust its pre-decoder buffer size responsive to a[[n]] received indication of a required pre-decoder buffer size ~~received from the source server.~~

49. (Currently amended) A client device according to claim 22, wherein the client device is arranged to:

[[-]] receive ~~signaling from the source server~~ information indicative of a plurality of at least one of a pre-decoder initial buffering time and a pre-decoder buffer size required to provide correct play-back of ~~each of a~~

~~number~~ of a plurality of different pre-encoded media streams
representative of the same media content;

[[-]] select one of the different pre-encoded media streams for playback at the
client device; and

[[-]] adjust its pre-decoder initial buffering time and pre-decoder buffer size
according to the requirements of the selected media stream.

50. (Currently amended) A client device according to claim 22, wherein the
client device is arranged to adjust at least one of its pre-decoder initial buffering time and
its pre-decoder buffer size responsive to a change in required pre-decoder buffer
parameters ~~signaled by the source server~~ received during a streaming session.

51. (Currently amended) A server for streaming media data, the server
comprising:

a controller for receiving information indicative of a client's pre-decoder
buffering parameters, the information indicative of at least one of the pre-decoder initial
buffering time and the minimum pre-decoder buffer size; sending information indicative
of a pre-decoder buffering parameter for the media data; sending information indicative
of a post-decoder buffering parameter for the media; adapting the transmission of a
plurality of data packets as a data packet stream to verify that the data packet stream
transmitted complies with a buffering algorithm, behavior of the buffering algorithm
being affected by the pre-decoder buffering parameters for the media data.

~~by transmitting a plurality of data packets as a data packet stream to a client device, the data packets formed by adding protocol headers to media data, the client device comprising a source decoder and a pre-decoder buffer for buffering the media data temporarily before decoding into an uncompressed data format in the source decoder of the client device, wherein the server is arranged to verify that the data packet stream transmitted from the server to the client device complies with a buffering algorithm used in the client device to buffer the media data in the pre-decoder buffer, behavior of the buffering algorithm being affected by a pre-decoder initial buffering time and a minimum pre-decoder buffer size, the minimum pre-decoder buffer size corresponding to a minimum size of the pre-decoder buffer required to provide substantially correct playback of the media data at the client device.~~

52. (Cancelled)

53. (Currently amended) A server according to claim 51, wherein a default pre-decoder initial buffering time and a default minimum pre-decoder buffer size are defined for the pre-decoder buffer ~~of the client device~~ and the server is arranged to verify the transmitted data packet stream according to the buffering algorithm using said default values.

54. (Previously presented) A server according to claim 53, wherein the server is arranged to receive signaling indicative of at least one of a default pre-decoder initial

buffering time and a default minimum pre-decoder buffer size in connection with setting up a streaming session.

55. (Currently amended) A server according to claim 53, wherein the received information indicates at least one of a default pre-decoder initial buffering time and a default minimum pre-decoder buffer size ~~are defined implicitly.~~

56. (Previously presented) A server according to claim 51, wherein the server is arranged to retrieve pre-decoder buffering capabilities for the client device from a capability server.

57 - 58. (Cancelled)

59. (Currently amended) A server according to claim 51, wherein the server is provided with a plurality of different pre-encoded media streams representative of the same media content, and is arranged to signal at least one of a pre-decoder initial buffering time and a pre-decoder buffer size required ~~in the client device~~ to ensure correct play-back of each available pre-encoded media stream.

60. (Currently amended) A server according to claim 51, wherein the server is arranged to signal a change in required pre-decoder buffer parameters ~~to the client device~~ during a streaming session.

61. (Currently amended) A server according to claim 51, wherein the server is arranged to adjust the transmission times of data packets ~~from the server to the client device~~ in order to ensure that the transmitted data packet stream does not exceed the buffering capabilities of the pre-decoder buffer in the client ~~device~~.

62. (Currently amended) A server according to claim 51, wherein the server is arranged to adjust the way in which the media data is encoded and packetised in order to ensure that the transmitted data packet stream does not exceed the buffering capabilities of the pre-decoder buffer in the client ~~device~~.

63. (Currently amended) A method for buffering media data in a client device, the media data being received at ~~[[a]]~~ the client device as a data packet stream ~~from a server~~, the client device comprising a pre-decoder buffer for buffering the media data temporarily before decoding ~~into an uncompressed data format~~, wherein the method ~~comprising: comprises~~

sending information indicative of the client's pre-decoder buffering parameters,
the information indicative of at least one of the pre-decoder initial buffering time and the
minimum pre-decoder buffer size;

receiving information indicative of a pre-decoder buffering parameter for the
media data;

receiving information indicative of a post-decoder buffering parameter for the
media data; and

buffering the media data in the pre-decoder buffer of the client device in accordance with a buffering algorithm, behavior of the buffering algorithm being affected by the pre-decoder initial buffering time and the minimum pre-decoder buffer size.

~~removing protocol headers from a data packet received at the client device to retrieve media data; and buffering the media data in the pre-decoder buffer of the client device in accordance with a buffering algorithm, behavior of the buffering algorithm being affected by a pre-decoder initial buffering time and a minimum pre-decoder buffer size, the minimum pre-decoder buffer size corresponding to a minimum size of the pre-decoder buffer required to provide substantially correct playback of the media data at the client device.~~

64. (Cancelled)

65. (Currently amended) A method according to claim 63, ~~further comprising defining a default pre-decoder initial buffering time and a default minimum pre-decoder buffer size for the pre-decoder buffer of the client device~~ wherein the sent information indicates at least one of a default pre-decoder initial buffering time and a default minimum pre-decoder buffer size.

66 - 67. (Cancelled)

68. (Currently amended) A method according to claim 63, further comprising:
~~wherein the client device adjusts its~~ adjusting pre-decoder initial buffering time
responsive to an indication of a received required pre-decoder initial buffering time
~~received from the server.~~

69. (Currently amended) A method according to claim 63, further comprising:
~~wherein the client device adjusts its~~ adjusting pre-decoder buffer size responsive to an
indication of a received required pre-decoder buffer size ~~received from the server.~~

70. (Currently amended) A method according to claim 63, further comprising:

- [[-]] receiving information ~~at the client device signaling from the server~~
indicative of a plurality of at least one of a pre-decoder initial buffering
time and a pre-decoder buffer size required to provide correct play-back of
~~each of a number~~ plurality of different pre-encoded media streams
representative of the same media content;
- [[-]] selecting one of the different pre-encoded media streams for playback at
the client device; and
- [[-]] adjusting the pre-decoder initial buffering time and pre-decoder buffer size
of the pre-decoder buffer according to the requirements of the selected
media stream.

71. (Currently amended) A method according to claim 63, wherein the client device adjusts at least one of its pre-decoder initial buffering time and its pre-decoder buffer size responsive to a change in required pre-decoder buffer parameters ~~signaled by the server~~ received during a streaming session.

72 – 84. (Cancelled)